



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
08/636,024	04/19/1996	JACK D. PIPPIN	042390.P1674	2339

22850 7590 06/06/2005

OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.
1940 DUKE STREET
ALEXANDRIA, VA 22314

EXAMINER

BRODA, SAMUEL

ART UNIT	PAPER NUMBER
----------	--------------

2123

DATE MAILED: 06/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

08/636,024

Applicant(s)

PIPPIN, JACK D.

Examiner

Samuel Broda

Art Unit

2123

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004 and 22 April 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 37-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37, 43-45, 49, 51 and 52 is/are rejected.
- 7) ☒ Claim(s) 38-42, 46-48, 50, and 53 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 March 1995 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>4/2004, 4/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

Art Unit: 2123

DETAILED ACTION

1. This communication is in response to:

- 1) Applicant's Request for Continued Examination and Information Disclosure Statement, received on 30 April 2004; and
- 2) Applicant's submission of an Information Disclosure Statement received on 22 April 2005.

Claims 37-53 are pending.

Claim Rejections - 35 U.S.C. § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

...

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2.1 Claims 37 and 49 are rejected under 35 U.S.C. 102(b) as being anticipated by Nakagawa, Kokai Patent Application HEI 2[1990]-83720 published 23 March 1990 (prior art submitted by Applicant).

2.2 Regarding method claim 49, Nakagawa teaches a method of controlling a temperature of a microprocessor, wherein the microprocessor performs the steps comprising:

Art Unit: 2123

a) generating a temperature signal within the microprocessor indicative of the temperature of the microprocessor [“Temperature monitor 5” sending “Temperature data 10” to “Decoder 12”, Fig. 1];

b) comparing the temperature signal with a first threshold temperature level within the microprocessor [comparison made by “Selector 9”, Fig. 1];

c) generating an interrupt signal if the temperature signal indicates that the first threshold temperature level has been exceeded [“Selector signal 13” acts as interrupt signal to choose frequency supplied by “Frequency divider circuit 8”, Fig. 1]; and

d) decreasing a microprocessor clock frequency in response to the interrupt signal [decreased frequency selected by “Selector 9” is sent to “Computer system 1”, Fig. 1].

Therefore, Nakagawa anticipates claim 49.

2.3 Regarding claim 37, this microprocessor claim corresponds to method claim 49; note that although Fig. 1 of Nakagawa does not include a register used to store a value corresponding to a threshold temperature, the translation of Nakagawa at the final sentence of page 7 states: “Alternatively, instead of using hardware, the temperature data can be observed using a program from the computer system, and the operating frequency controlled by the program.” Thus Nakagawa teaches use of computer programs to control frequencies, and use of registers is inherent in the operation of a computer program.

Claim Rejections - 35 U.S.C. § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

Art Unit: 2123

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3.1 Claims 43-45 and 51-52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakagawa (prior art submitted by Applicant), in view of Willett et al, "Pentium May be Too Hot for 'Upgradeable' Systems," InfoWorld, Vol. 15 No. 20, pages 1 and 105 (17 May 1993).

3.2 Regarding system claims 43-45 and method claims 51-52, Nakagawa does not appear to teach activation of an active cooling device such as a fan in response to the interrupt signal generated when a threshold temperature has been exceeded by the microprocessor.

However, Willett et al teaches placement of a mini-fan on a microprocessor to prevent overheating. See page 1, paragraph 4. According to Willett et al at page 105 column 2 paragraph 2, "A fan may also be built onto another full-powered Pentium chip for the existing systems." Willett et al also cites a report circulated by the brokerage firm Donaldson, Lufkin & Jenrette suggesting that nearly 90 percent of existing (pre-Pentium) systems would not meet the new cooling requirements. See page 105 column 1 paragraph 3.

3.3 Regarding system claims 43-45 and method claims 51-52, it would have been obvious to one of ordinary skill at the time of Applicant's invention to incorporate an active cooling device onto the microprocessor of Nakagawa, because placement of the active cooling

Art Unit: 2123

device onto the microprocessor would permit older systems that lack adequate cooling systems to receive upgradeable microprocessors that generate higher amounts of heat.

Allowable Subject Matter

4. Claims 38-42, 46-48, 50, and 53 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to Applicant's disclosure.

6. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Samuel Broda, whose telephone number is (571) 272-3709. The Examiner can normally be reached on Mondays through Fridays from 8:00 AM – 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Kevin Teska, can be reached at (571) 272-3716. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the group receptionist, whose telephone number is (571) 272-2100.



**SAMUEL BRODA, ESQ.
PRIMARY EXAMINER**